

DOCKET NO: 258317US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
NORIO MIYAURA, ET AL. : EXAMINER: SHIAO, REI TSANG
SERIAL NO: 10/505,460 :
FILED: SEPTEMBER 2, 2004 : GROUP ART UNIT: 1626
FOR: PROCESS FOR PRODUCTION OF :
HETEROARYL-TYPE BORON
COMPOUNDS WITH IRIIDIUM
CATALYST

RESPONSE TO RESTRICTION
and
ELECTION OF SPECIES REQUIREMENT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

In response to the Election of Species/Restriction Requirement mailed November 27, 2006, Applicants provisionally elect Group I and the species disclosed in Examples 1 to 6 both with traverse. Applicants request that the Examiner consider the following:

Remarks/Arguments begin on page 2 of this paper.

REMARKS/ARGUMENTS

In the Election of Species/Restriction Requirement dated November 27, 2006, the Examiner delineated the following inventions as being patentably distinct:

Group I, Claims 1 and 3-11, in part, drawn to processes of making compounds of formula (V) or (VI), wherein the variable X represent oxygen or sulfur atom thereof, the variable Y or Z independently represents --CH= thereof, the variable R^1 and R^2 of formula (V) do not form a ring thereof (I.e., formula (II)). If this group is elected, applicants are requested to elect a single species for the search purpose.

Group II, Claims 1 and 3-11, in part, drawn to processes of making compounds of formula (V) or (VI), wherein the variable X represent imino thereof, the variable Y or Z independently represents --CH= thereof, or the variable R^1 and R^2 of formula (V) form a ring thereof (i.e., formula (II)). If this group is elected, applicants are requested to elect a single species for the search purpose.

Group III, Claims 2 and 3-11, in part, drawn to processes of making compounds of formula (VIII) or (IX), wherein the variable u, v or w independently represent --CH= thereof, the variable Y or Z independently represents --CH= thereof, or the variable R^4 and R^5 of formula (VIII) form a ring thereof (i.e., formula (II)). If this group is elected, applicants are requested to elect a single species for the search purpose.

The Examiner further required the election of a single species.

Accordingly, Applicants provisionally elect with traverse Group I and the species of Examples 1-6.

Restriction is only proper if the claims of the restricted groups are either independent or patentably distinct and there would be a serious burden placed on the Examiner if restriction is not required (M.P.E.P. § 803). The burden of proof is on the Examiner to

provide reasons and/or examples to support any conclusions in regard to patentable distinction (M.P.E.P. § 803). Moreover, when making a lack of unity of invention, in a national stage application, the Examiner has the burden of explaining why each group lacks unity of explaining why each group lacks unity with each other (i.e. why there is no single inventive concept) specifically describing the unique special technical feature in each group (M.P.E.P. § 1893.03(d)). Applicants respectfully traverse the restriction requirement on the grounds that the Examiner has not carried out the burden of providing any reasons and/or examples to support any conclusions that the groups lack unity of invention.

The Examiner asserts that Groups I-III do not relate to a single general inventive concept under PCT 13.1 and 13.2 because they lack the same corresponding special technical feature.

The Examiner, however, has not considered that the claims in each group are considered related inventions under 37 C.F.R. § 1.475(b) in which the inventions are considered to have unity of invention.

All of the claims are directed to a coupling process wherein the reactive sites are the same. The invention by the instant application is the boronation of an aromatic heterocyclic compound using an iridium catalyst and bipyridene derivative as a legend. The heteroboron compound is reacted with a heteroaryl compound wherein the boron compound is substituted on the heteroaryl in most instances ortho to the hetero atom. Monoboronation and diboronation can be controlled by the ratio of the reactants used. The only variable appears to be the iridium catalyst used and/or the heteroaryl compound reactant used.

Applicants submit that while PCT Rule 13.1 and 13.2 are applicable 37 C.F.R. § 1.475(b) provides in relevant part that “a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn to a process specially adapted for the manufacture of a product.”

In the case of the instant application Claims 1-11 are directed to the process of a coupling reaction i.e. a heteroaromatic compound with a heteroboron compound. It is apparent that the substituents on the heteroboron ring are not critical to the reaction and the end results thereof.

Moreover, Applicants respectfully submit that a search of all the claims would not impose a serious burden on the Office. As the Office has not shown any evidence that a restriction requirement should be required when the International Preliminary Examination Report did not, restriction is believed to be improper.

For the reasons set forth above, Applicants request that the Restriction Requirement be withdrawn.

Applicants further request that if the invention of Group I is found allowable withdrawn Groups II and III which includes the limitation of the allowable claims be rejoined M.P.E.P. § 821.04.

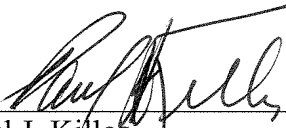
Applicants respectfully submit that the above-identified application is now in condition for examination on the merits, and an early notice of such action is earnestly solicited.

Respectfully submitted,

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